

**SECTION 8.21**  
**PRECAST CONCRETE BARRIER CURB**

**8.21.01--Description:** Under this item, the Contractor shall furnish and install precast concrete barrier curb in the locations shown on the plans.

**8.21.02--Materials:**

1. Concrete shall conform to the requirements of Article M.14.01 amended as follows:
  - (a) Concrete shall have a minimum 28 days strength (f'c) of 28 MPa.
  - (b) Coarse Aggregate shall conform to the requirements of M.03.01-1 and to the grading requirements of Class "F."
  - (c) Fine Aggregate shall be light in color and shall conform in color and type to the samples on file at the Laboratory of the Department of Transportation located in Rocky Hill, Connecticut.
  - (d) Cement for light concrete shall be Type III or Type IIIA Portland Cement or light colored cement approved by the Engineer.
  - (e) The entrained air content shall be not less than 5% nor more than 7%.
  - (f) The manufacturer identification and casting date shall be permanently marked on the barrier curb by means of a non-corrosive metal or plastic tag as approved by the Engineer and in the location as shown on the plan.
2. Reinforcing steel shall conform to the requirements of Article M.06.01.
3. Lifting hooks, keys, threaded inserts, bolts, devices and attachments shall be of the size indicated on the plans or of a design satisfactory for the purpose intended as approved by the Engineer.
4. Dowels shall conform to the requirements of ASTM A36.
5. Galvanizing shall conform to the requirements of ASTM A123.
6. Penetrating Sealer Protective Compound shall conform to 8.19.
7. Precast concrete barrier curb shall be accepted on the basis of manufacturer's certification, as defined in Article M.08.02.

**8.21.03--Construction Methods:**

1. Precast Units: Concrete barrier units shall be precast in an approved plant in conformance with the applicable requirements of Subarticles 5.14.03-4, 6, 7, 8 and 15 supplemented as follows:

Forms for precast concrete barrier units shall be of substantial construction, lined so as to produce a smooth dense surface with a uniform appearance. Form oil shall be a non-staining type. Air holes on exposed surfaces shall be filled immediately after removal of the forms to the satisfaction of the Engineer.

2. The precast units shall be placed on a prepared subbase and shall be installed to the lines and grades given and in accordance with the dimensions and details shown on the plans so as to produce a smooth continuous barrier curb.

Special transition units, as required, may be cast in place in accordance with Article 6.01.03.

3. Backfilling: The backfilling shall be completed to the lines shown on the plans, or as ordered, by filling to the required elevation with approved material which shall be placed in layers of not over 150 mm in depth with each layer compacted until firm and solid.

4. Whenever concrete barrier is being constructed adjacent to roadways open to traffic, the Contractor shall complete the installation to and including the designed terminal treatment at the close of each day's work so as to prevent any hazard that would be caused by leaving an exposed end.

On long runs or other locations where it is not practical to complete the installation to and including the designed terminal treatment, the Contractor shall install and maintain temporary protection by methods such as impact attenuating devices for terminating the barrier so as to minimize any hazard.

The Contractor shall submit to the Engineer for approval details of his proposed methods for the temporary terminal treatment of the end section.

5. Precast units shall meet the 28 day strength requirements before shipping. Precast units that have been damaged shall be removed from the project at the Contractor's expense. Each line of barrier shall be uniform in color.

6. Precast units shall be coated with a penetrating sealer protective compound conforming to 8.19.03.

**8.21.04--Method of Measurement:** This work will be measured for payment along the centerline of the top of the concrete barrier and will be the actual number of meters of the size of concrete barrier installed and accepted.

**8.21.05--Basis of Payment:** This work will be paid for at the contract unit price per meter for "Precast Concrete Barrier Curb," of the size specified, complete in place, which price shall include all backfill, sand backfill, joint seal, materials, reinforcing steel, dowels, penetrating sealer protective compound, transportation, equipment, tools and labor incidental thereto. Backfill placed between a double row of concrete barrier curb shall be paid for under the item "Granular Fill." The concrete cap shall be paid for under the item "Class 'A' Concrete."

Pay Item	Pay Unit
Precast Concrete Barrier Curb (Size)	m